

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P310110

Luminaire Tested: **24FCZ2-45HE-UNV-L82765-RDP-CP125-W2A-U-5700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P310110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-45HE-UNV-L82765-RDP-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 5700K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2809.0 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

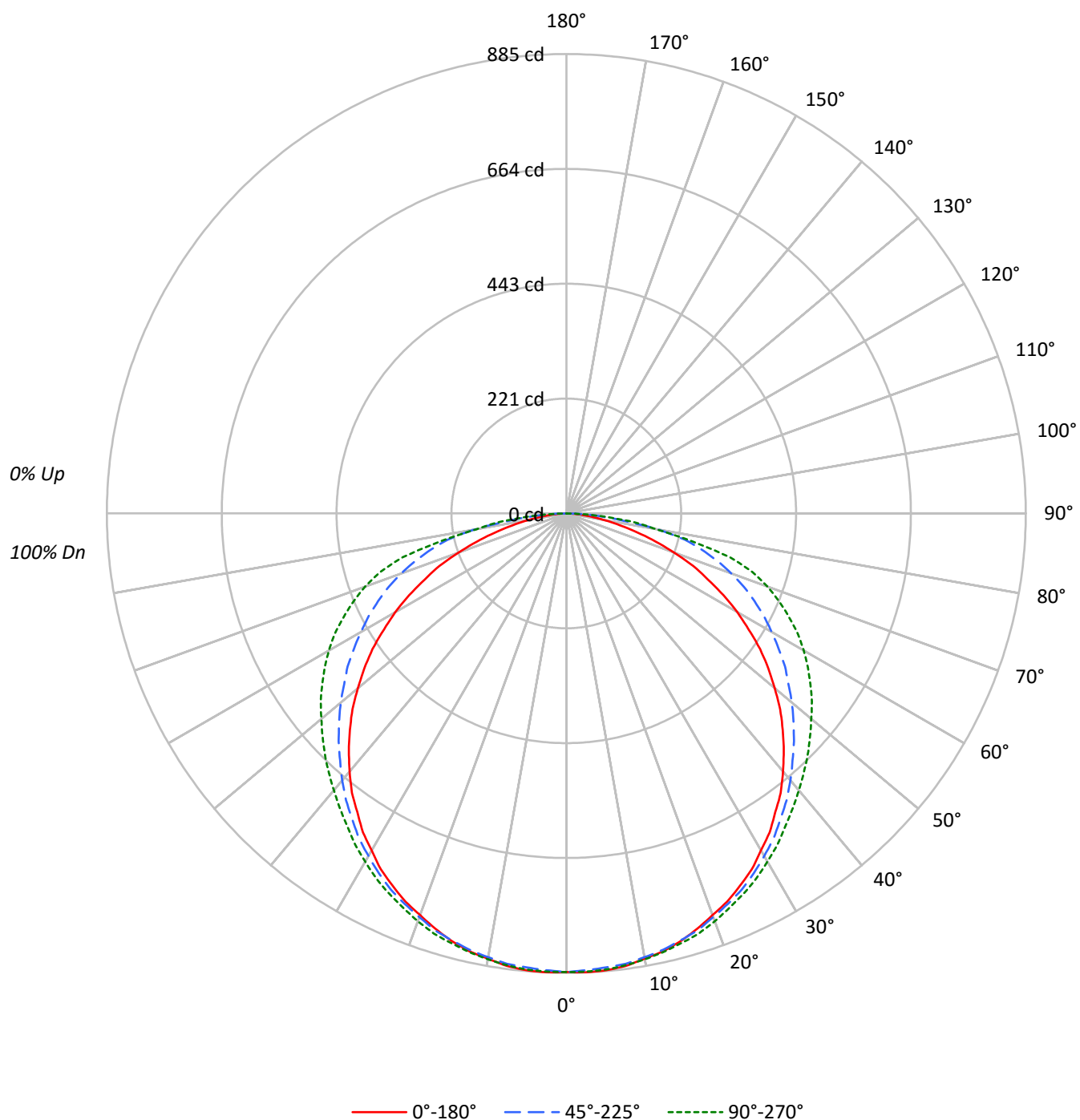
Input Watts (W): 34.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1189	1189	1189
5°	1193	1186	1191
10°	1190	1186	1192
15°	1188	1186	1194
20°	1179	1185	1197
25°	1175	1187	1200
30°	1165	1184	1204
35°	1153	1181	1208
40°	1140	1180	1224
45°	1122	1180	1251
50°	1097	1187	1289
55°	1069	1206	1346
60°	1024	1230	1421
65°	958	1273	1508
70°	871	1332	1622
75°	739	1405	1695
80°	583	1414	1371
85°	431	1076	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	3.0
10°-20°	241.2	8.6
20°-30°	368.8	13.1
30°-40°	450.8	16.0
40°-50°	480.5	17.1
50°-60°	459.4	16.4
60°-70°	389.2	13.9
70°-80°	261.6	9.3
80°-90°	73.8	2.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	693.7	24.7
0°-40°	1144.6	40.7
0°-60°	2084.5	74.2
0°-90°	2809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	883	883	883	883	883	
5°	883	882	878	882	882	84
15°	853	853	851	858	857	240
25°	791	794	800	807	808	365
35°	702	708	719	733	736	440
45°	589	599	620	646	658	455
55°	456	472	514	554	574	406
65°	301	332	400	453	474	299
75°	142	194	270	316	326	152
85°	28	57	70	75	78	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	883.4	883.4	883.4	883.4	883.4
2.5°	884.7	884.7	880.6	883.4	883.4
5°	883.4	882.0	877.8	882.0	882.0
7.5°	879.2	877.8	875.0	879.2	877.8
10°	870.8	870.8	868.0	872.2	872.2
12.5°	863.8	862.5	861.1	866.6	865.2
15°	852.7	852.7	851.3	858.3	856.9
17.5°	838.8	840.2	841.6	847.1	848.5
20°	823.4	826.2	827.6	836.0	836.0
22.5°	809.5	810.9	813.7	822.0	822.0
25°	791.4	794.2	799.8	806.7	808.1
27.5°	773.3	774.7	781.6	791.4	792.8
30°	749.6	753.8	762.1	773.3	774.7
32.5°	728.7	732.9	742.6	753.8	756.6
35°	702.2	707.8	718.9	732.9	735.7
37.5°	678.5	682.7	696.6	712.0	716.2
40°	649.3	657.6	671.6	689.7	696.6
42.5°	620.0	628.4	645.1	668.8	677.1
45°	589.4	599.1	620.0	646.5	657.6
47.5°	558.7	569.9	593.5	624.2	636.7
50°	523.9	537.8	567.1	601.9	615.8
52.5°	490.4	507.2	539.2	578.2	596.3
55°	455.6	472.3	514.1	554.5	574.0
57.5°	416.6	438.9	484.9	530.8	551.7
60°	380.4	401.3	457.0	507.2	528.1
62.5°	341.4	369.2	429.1	482.1	503.0
65°	301.0	331.6	399.9	452.8	473.7
67.5°	264.7	298.2	370.6	423.6	444.5
70°	221.5	263.3	338.6	391.5	412.4
72.5°	181.1	227.1	305.1	356.7	376.2
75°	142.1	193.7	270.3	316.3	326.0
77.5°	105.9	160.2	234.1	253.6	246.6
80°	75.2	128.2	182.5	172.8	176.9
82.5°	48.8	97.5	112.9	128.2	132.4
85°	27.9	57.1	69.7	75.2	78.0
87.5°	12.5	20.9	27.9	27.9	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)